JAMES G. RICE, Oregon State Bar ID Number 82488
Deputy City Attorney
<u>jrice@ci.portland.or.us</u>
DAVID A. LANDRUM, Oregon State Bar ID Number 95542
Deputy City Attorney
<u>dlandrum@ci.portland.or.us</u>
Office of City Attorney
1221 SW 4th Avenue, Rm 430
Portland, OR 97204
Telephone: (503) 823-4047
Facsimile: (503) 823-3089
Of Attorneys for Defendants Mayor Tom Potter,
Chief Rosanne Sizer, Humphreys, Nice and the City of Portland and Tri-County Transportation District of Oregon

UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

JAMES P. CHASSE, JR.; JAMES P. CHASSE; LINDA GERBER; and MARK CHASSE, individually and in his capacity as Personal Representative of the ESTATE OF JAMES P. CHASSE, JR.,

07-CV-189-HU

CITY DEFENDANTS' EXPERT WITNESS STATEMENT OF TOM S. NEUMAN, MD, FACP, FACPM

PLAINTIFF,

v.

CHRISTOPHER HUMPHREYS; KYLE NICE; CITY OF PORTLAND; ROSANNE SIZER; TOM POTTER; BRET BURTON; MULTNOMAH COUNTY; PATRICIA GAYMAN; SOKUNTHY EATH; TRICOUNTY METROPOLITAN TRANSPORTATION DISTRICT OF OREGON; AMERICAN MEDICAL RESPONSE NORTHWEST, INC.; TAMARA HERGERT and KEVIN STUCKER,

DEFENDANTS.

Defendants Christopher Humphreys, Kyle Nice, the City of Portland, Rosanne Sizer,

Tom Potter and Tri-County Metropolitan Transportation District of Oregon (hereinafter "City

Defendants") submit this expert statement for Tom S. Neuman, MD, FACP, FACPM.

Page 1 – CITY DEFENDANTS' EXPERT WITNESS STATEMENT OF TOM S. NEUMAN, MD, FACP, FACPM

Tom S. Neuman, MD, FACP, FACPM 579 Amphitheater Drive Del Mar, California 92014 619-755-0795

Dated: October 23, 2009

Respectfully submitted,

JAMES G. RICE OSB # 824884

Deputy City Attorney Telephone: (503) 823-4047

Tom S. Neuman, M.D., FACP, FACPM 579 Amphitheater Drive Del Mar, California 92014 619-755-0795

October 15, 2009

Mr. James Rice Portland City Attorney Office 1221 SW Fourth Avenue #430 Portland, OR 97204

Dear Mr. Rice:

Per your request, I have reviewed the records you have forwarded to me as well as the records previously forwarded to me by Ms. Dunaway. In accordance with that request, I will give you my opinions concerning the death of Mr. Chasse. Furthermore, I am also prepared to comment upon the opinions of Dr. Long as stated in his report(s).

The documents I have reviewed thus far are:

- 1. 1st call-911 log
- 2. 1st call-AMR PCR
- 3. 1st call-Fire Bureau PCR
- 4. 1st call-LifePak printout
- 5. 2nd call-911 log
- 6. 2nd call-AMR PCR
- 7. 2nd call-ECG printout
- 8. 2nd call-Fire Bureau PCR
- 9. Declaration of Kevin Stucker
- 10. Declaration of Tamara Hergert
- 11. Deposition transcript of Tamara Hergert
- 12. Deposition transcript of Kyle Nice
- 13. Deposition transcript of Melissa Gaylord
- 14. Deposition transcript of Lori Corrigall
- 15. Deposition transcript of James Hunter
- 16. Deposition transcript of Jon Olson
- 17. Deposition transcript of Constance Doolan
- 18. Deposition transcript of Carl Weldon
- 19. Deposition transcript of Dr. Carlos Sanchez
- 20. Deposition transcript of Jamie Marquez
- 21. Deposition transcript of Edward Morris
- 22. Deposition transcript of Diane Loghry
- 23. Deposition transcript of Bret Burton
- 24. Deposition transcript of Jose Gonzalez
- 25. Deposition transcript of Patricia Gayman
- 26. Deposition transcript of Tony Carter
- 27. Deposition transcript of Barry Bernard
- 28. Deposition transcript of David Lillegaard
- 29. Deposition transcript of Erin Glanz

- 30. Deposition transcript of Mark Ginsberg
- 31. Deposition transcript of Homer Williams
- 32. Deposition transcript of Michael Gentry
- 33. Deposition transcript of Marian Drake
- 34. Deposition transcript of Elizabeth Anderson
- 35. Deposition transcript of Alireza Soltani
- 36. Deposition transcript of George Humphreys
- 37. Deposition transcript of Cynthia Newton (I and II)
- 38. Deposition transcript of Kevin Stucker
- 39. Deposition transcript of Edward Johnson
- 40. Deposition transcript of Pontine Rosteck
- 41. Deposition transcript of Michael Burdick
- 42. Deposition transcript of Timothy Hennigan
- 43. Deposition transcript of Shauna Hahn
- 44. Deposition transcript of Jolene Kawecki
- 45. Deposition transcript of Lorraine Hearn
- 46. Deposition transcript of Dr. Karen Gunson
- 47. Autopsy Report of Dr. Gunson
- 48. Autopsy Photos
- 49. Clinical Investigation Summary of AMR
- 50. Clinical Investigation of AMR
- 51. Amended Protective Order of Nov 2007
- 52. Portland Police IA Interview with Dr. Gunson (June 21 and May 22)
- 53. Portland Police IA Interview Kevin Stucker
- 54. Portland Police Bureau In Custody Death Investigation Report
- 55. Medical Records of Mr. Chasse
- 56. Cascadia Behavioral Health Care Records
- 57. Expert Report of Paul Werfel
- 58. Report of Dr. Gerald Warnock
- 59. Expert reports of Dr. Long dated August 2009 and September 2009
- 60. Supplemental Toxicology Report
- 61. Enhanced Audio and Video
- 62. Attorney Interviews with Benjamin Persyn, David Lillegaard, and Melissa Gaylord
- 63. State of Oregon State Fire Marshall Incident Report
- 64. Portland Fire Bureau, Pre Hospital Care Report
- 65. Multnomah county Death Investigation Report of Officer Jon Gaddis
- 66. Portland Police Bureau Special Report and Interviews with:

Jamie Marquez

Randall Stuart

Constance Doolan

Alireza Soltani (and email)

Mark Ginsberg

Diane Loghry

Donal Reeb

Gary Szalay

Bill Koppy

Brian Malloy (labeled Gary Szalay)

Elizabeth Anderson

Melissa Gaylord (no transcript)

Yvonne Ingram (no transcript) Homer Williams (no transcript) Benjamin Persyn (no transcript) Jon Olson (no transcript)

I believe I have the appropriate experience and knowledge to provide you with these opinions, as I am board certified in both Emergency Medicine and Pulmonary Medicine. Furthermore I have extensive experience evaluating traumatic injuries from autopsy reports. For more complete information concerning my background and experience, please see my curriculum vitae, which is attached to this report.

As a basic caveat, I must remind you that opinions are always based upon the specific facts at hand. Should additional material become available that alters the basic facts as I understand them, I must reserve the right to amend my opinions.

Based upon the above material, the most important facts appear to be:

- 1. A confrontation between Mr. Chasse and police occurred.
- 2. Although there are various descriptions of this interaction, Mr. Chasse appears to have been taken down from behind (what some might describe as tackling and what others describe as him being pushed to the ground)
- 3. There was a period of a few seconds to a few minutes, where Mr. Chasse was described to have possibly "stopped breathing," or been unconscious.
- 4. Paramedics were called to the scene and an initial assessment was performed.
- 5. It was concluded that Mr. Chasse could be taken to jail
- 6. At jail Mr. Chasse was carried in and a video reveals him to be screaming and yelling while he was carried in.
- 7. He was noted to have a few seconds of shaking activity interpreted as a possible seizure
- 8. It was concluded that he should be transported to the hospital
- 9. A video as he left the jail also revealed Mr. Chasse to be yelling and screaming
- 10. On the way to the hospital he was observed by Officer Humphreys
- 11. He appeared to be behaving in the same fashion as he had been, when suddenly he appeared to slump to the side and was thought to have stopped breathing
- 12. The police car left the freeway and stopped at an exit where a passerby was able to bring an AED to the scene.
- 13. The AED advised no shock
- 14. Paramedics arrived and started advanced cardiac life support measures and brought Mr. Chasse to a local hospital.
- 15. At the hospital a physical exam was performed by the treating physician and he noted no abnormality of the chest.
- 16. Resuscitative measures were unsuccessful and Mr. Chasse was declared dead.
- 17. After the resuscitation a deformity of Mr. Chasse's chest was noted that was not appreciated prior to his treatment
- 18. At autopsy Dr. Gunson noted multiple rib fractures anteriorly, laterally and posteriorly
- 19. Dr. Gunson also commented that Mr. Chasse had unusual bones. She described them as like those of a 70 year old woman.
- 20. A CT scan taken after Mr. Chasse's death was interpreted by Dr. Warnock. There was a discrepancy between the fractures he noted and those noted by Dr. Gunson
- 21. Dr. Warnock reported that Mr. Chasse's bones appeared normal

22. Dr. Long's report(s) describe a variety of mechanisms by which Mr. Chasse's ribs may have been fractured.

You have asked my opinion as both an Emergency Physician and a pulmonologist, how and when Mr. Chasse likely suffered the fractures of his ribs and furthermore from a clinical point of view what was the cause of Mr. Chasse's death.

From my perspective, the most difficult part of the above request is the issue of Mr. Chasse's rib fractures. I agree with Dr. Long that the anterior rib fractures were most likely caused by CPR. I also agree with Dr. Long (assuming that Mr. Chasse had normal ribs) that it is unlikely that Mr. Chasse's fractures were the result of officers simply tackling or taking him down (2nd report dated September 2009)). Similarly, I agree with Dr. Long that Mr. Chasse's fractures required that his back took the "brunt of the force" should those injuries have occurred at the time of his initial takedown (1st report dated August 2009). According to the deposition testimony I read, this did not appear to be the case. Thus there is a major discrepancy between the fractures that were observed on Mr. Chasse and the mechanism by which they might have occurred. However, conclusions concerning the mechanism by which Mr. Chasse's posterior and lateral ribs were fractured, are dependent upon our collective experience and assumptions that Mr. Chasse's ribs were normal. Unfortunately there is discordant information in this regard and one must believe either Dr. Gunson who directly observed Mr. Chasse's ribs or Dr. Warnock's interpretation of the CT scan. If Dr. Warnock is correct there is no plausible explanation for Mr. Chasse's rib fractures. On the other hand, if Dr. Gunson is correct, we have no experiential basis to determine when Mr. Chasse may have suffered the rib fractures that were not due to CPR. One possibility for the fractures would be if some of them occurred while Mr. Chasse was screaming and yelling as he was being carried in and out of the jail. Although certainly one would not expect such fractures to occur to an individual with normal ribs, there is a phenomenon called "cough fractures" and one could argue that some of the fractures may have been caused in this fashion. In my opinion, given the description of a normal physical exam of the chest by Dr. Sanchez before the CPR started in the ED and the observation of the misshaped chest after the CPR, it is most likely that the rib fractures noted at autopsy, occurred at the time of the CPR.

The above conclusion is consistent with the video of Mr. Chasse entering and leaving the jail and the description of the events by Officer Humphreys' of the events in the patrol car just before Mr. Chasse's cardiac arrest. Had Mr. Chasse suffered from a flail chest and was he going into respiratory failure, it is in my opinion, highly unlikely that he would have been able to scream and yell in the manner seen on the video in such a condition (i.e. an individual able to scream and yell in such a fashion is able to mount the minimal ventilatory movements necessary to live). Furthermore, had Mr. Chasse died of respiratory failure secondary to his chest injuries, his deterioration would have been a slower, more prolonged process than the sudden deterioration described by Officer Humphreys. Mr. Chasse's cardiac arrest in the patrol car appears to be described as a very sudden event, and such an event is most likely a primary cardiac event of some sort. (Had Mr. Chasse suffered his rib fractures prior to this time (i.e. at the time of his arrest or while he was in jail) another possibility to consider would be an air embolism to account for his death. It is my opinion, however, that had Mr. Chasse died of an air embolism, there would have been ample evidence of this at autopsy. No such findings were described and therefore I conclude that this was not the cause of Mr. Chasse's

death.) Although Mr. Chasse's heart was normal at autopsy, there is a distinct syndrome of sudden death in psychotic individuals who have been deteriorating over a period of several days to months.

The above conclusions then also form the basis of my opinions concerning the care Mr. Chasse received from the paramedics at the time of his initial evaluation. Since I do not believe his injuries were present at the time of that evaluation a more complete secondary evaluation would have discovered nothing of concern and the same decision would have been made concerning whether or not Mr. Chasse needed to be transported.

In summary, my opinions (to a reasonable level of medical certainty) are:

- 1. The mechanism of his injury as described by the police as well as eyewitnesses is not consistent with the fractures observed at autopsy
- 2. Mr. Chasse suffered the bulk of his rib fractures at the time of his CPR
- 3. Mr. Chasse's death was clinically a sudden cardiac death
- 4. Had Mr. Chasse been more fully evaluated at the time of his initial arrest, no significant traumatic injuries would have been discovered on physical exam which would have mandated paramedic transport

Thank you for allowing me to participate in this case. I look forward to reviewing any further relevant information.

Very truly yours,

Tom S. Neuman, M.D., FACP, FACPM Emeritus Professor of Medicine

University of California, San Diego

TOM S. NEUMAN, M.D., FACP, FACPM

Home Address:

579 Amphitheatre Drive Del Mar, CA 92014 Phone: (858) 755-0795

Office Address:

Department of Emergency Medicine UCSD Medical Center 200 W. Arbor Drive San Diego, CA 92103-8676 Phone: (619) 543-6463

Fax #: (619) 543-3115 E-mail: tneuman@ucsd.edu

Personal:

Born July 23, 1946 in New York City, New York Family Data: Married to former Doris L. Rubin, B.S. (Long Island University), M.S. (Brooklyn College) Daughter: Allison Rachel Neuman, born 6-22-80 Son: Russell Solomon Neuman, born 9-12-86

Education:

Academic:

A.B., Cornell University

1963-67

Ithaca, New York

Medical School:

M.D., New York University School of Medicine

1967-71

New York, New York

Internship:

Straight Medical Internship

1971-72

Bellevue Hospital, New York, New York

Residency:

Internal Medicine Residency

1972-73

Bellevue Hospital, New York, New York

Fellowship:

Pulmonary Medicine and Physiology

1976-78

University of California, San Diego Medical Center

University and Affiliated Hospitals

Board Recognition:

1972 Diplomate, National Board of Medical Examiners, Certified

1977 American Board of Internal Medicine - Certified in Internal Medicine

1978 American Board of Internal Medicine - Certified in Pulmonary Disease

1980 American Board of Preventive Medicine - Certified in Occupational

Medicine

1986 American Board of Emergency Medicine - Certified in Emergency Medicine,

(Recertified 1996 and 2006)

Case 3:07-cv-00189-KI Document 839 Filed 03/29/10 Page 9 of 40 Tom S. Neuman, M.D., FACP, FACPM

Board Recognition (continued):

2000		 American Board of Preventive Medicine - Cer	rtified in	Undersea	a and
	٠.	Hyperbaric Medicine			

Awards and Scholarships:

1964-67	Regents Scholarship, Cornell University
1967-71	Admissions Scholarship, New York University School of Medicine
1969	Lang Award, (Outstanding Student)
2002	Undersea and Hyperbaric Medical Society Distinguished Service Award
2004	Merrill P. Spencer Award for Lifetime Achievement, Undersea and Hyperbaric Medicine Society (North Pacific Chapter)
2006	The Craig Hoffman Memorial Award for contributions to diving safety, Undersea and Hyperbaric Medicine Society
2007	The Albert R. Behnke Award for Outstanding Scientific Contributions to Advances in the Undersea or Hyperbaric Biomedical Field, Undersea and Hyperbaric Medicine Society

National Honors:

1983-84	Vice President, Undersea Medical Society
1985-90	Secretary, American College of Undersea and Hyperbaric Medicine
1989-90	President, Undersea and Hyperbaric Medical Society
1985-96	Board of Governors, American College of Undersea and Hyperbaric Medicine
1990-96	President, American College of Undersea and Hyperbaric Medicine
2003-06	Consumer's Research Council of America, Listed in "Guide to America's Top Physicians" (3,000 from all 50 states & Puerto Rico) Publication, 2003, 2004-2005, 2006 Editions.
1997-present	Included in Marquis' "Who's Who in American Education", 1993-present, "Who's Who in America", 1994-present and "Who's Who in Medicine & Healthcare", 1997-present

Appointments:

2006-present	Professor of Clinical Medicine, Emeritus
2006-present	Representative of the American Board of Preventive Medicine for the Specialty Examination of Undersea and Hyperbaric Medicine
2001-present	National Academy of Sciences, Institute of Medicine, Standing Committee on Aerospace Medicine and the Medicine of Extreme Environments (CAMMEE), which supports the Institute of Medicine (IOM) Health Sciences Policy Board

Previous Experience:

2006-2007	IOM Committee to Review NASA's Space Flight Health Standards
2000-2006	Liaison from the American Board of Emergency Medicine to the American Board of Preventive Medicine for the Specialty Examination of Undersea and Hyperbaric Medicine
1984-2006	Director, Hyperbaric Medicine Center, UCSD Medical Center
1984-2006	Base Hospital Physician, UCSD Medical Center
1990-2006	Adjunct Professor of Surgery, UCSD School of Medicine
1994-2006	Associate Director, Department of Emergency Medicine, UCSD Medical Cente
1996-2006	Professor of Clinical Medicine, University of California, San Diego (UCSD) School of Medicine
2005	National Research Council Subcommittee on NASA's Human Health and Support Systems (Panel D)
2002-2005	Member, Bioastronautics Critical Path Roadmap (BCPR) Committee on reducing and managing risks to crew health, safety, and performance during, and following, all human space flight missions
2002-2004	National Academy of Sciences, Institute of Medicine, Committee on the Longitudinal Study of Astronaut Health (LSAH).
1999-2001	National Academy of Sciences, Institute of Medicine, Committee on Creating a Vision of Space Medicine Beyond Earth Orbit; the Colonization of the Moon and the Mars Expedition.
1990-96	Adjunct Professor of Medicine, UCSD School of Medicine
1987-90	Associate Adjunct Professor of Medicine and Surgery, UCSD School of Medicine
1984-87	Associate Clinical Professor of Medicine and Surgery, UCSD School of Medicine

Previous Experience (continued):

1982-85	Member, Medical Advisory Board of the Western Regional Underwater Laboratory Program, University of Southern California Marine Science Cente Catalina, CA
1980-98	Attending Physician, Pulmonary Division (Clinical Consultation and Pulmonary Function Testing Laboratory), UCSD Medical Center
1980-84	Assistant Director, Department of Emergency Medicine, UCSD Medical Center
1980-86	Flight Physician, Life Flight Air Medical Program, UCSD Medical Center
1980-84	Assistant Clinical Professor of Medicine, UCSD School of Medicine
1978-80	Clinical Instructor, UCSD School of Medicine
1976-78	Attending Physician, Veterans Administration Medical Center, La Jolla, California
1975-80	Emergency Room Physician, Chula Vista Community Hospital, Chula Vista, California
1972-73	Teaching Assistant, New York University School of Medicine
and the second of the second o	

Governmental Appointments:

Member, San Diego Coroner's Committee for Investigation of Diving Fatalities, 1974-present

Medical Diving Consultant, Vocational Diver Training Facility, California Institution for Men, Chino, California, 1987-92

Member, City Manager's Task Force on Carbon Monoxide Poisoning, San Diego, California, 1991-1992

NASA Consultant, 2000- present

Occupational/ Diving Education and Experience:

Naval School of Submarine Medicine, New London, CT, 1973

Naval School of Diving and Salvage, Washington, DC, 1973

Naval Nuclear Power Training Unit, West Milton, NY, 1973

Naval School of Deep Diving Systems, San Diego, CA, 1974

Naval Submarine Medical Officer; Qualified 1974

Occupational/ Diving Education and Experience (continued):

Naval Undersea Medical Officer; Qualified 1975

Naval Saturation Qualified Medical Officer, 1975

CMAS (Confederation Mondiale des Activities Subaquatiques)

Instructor Second Degree, 1978 - 1982

PADI Scuba Instructor Emeritus

Military Experience:

7/73 - 12/73	Submarine Medical Officer Candidate
12/73 - 6/74	Instructor, Naval Undersea Medical Institute, New London, Connecticut
6/74 - 6/76 & 7/78 - 6/80	Staff Medical Officer, Submarine Development Group One, San Diego, California
7/80 - 8/84	Medical Officer, UDT/SEAL Reserve Unit 119, San Diego, California
9/84 - 8/86	Medical Officer, Mobile Diving and Salvage Unit One, U.S. Naval Reserves, San Diego, California
9/86 - 12/87	Senior Medical Officer, Seal Teams 1/3/5, U.S. Naval Reserves, Coronado, California
1/88 - 9/90	Medical Officer, PRIMUS Unit 1942-A, University of California, San Diego School of Medicine
10/90 - 1/95	Assistant Officer in Charge, Medical Unit 1942-A, University of California, San Diego School of Medicine
2/95 - 4/96	Medical Officer, PRIMUS Unit 1942-A, University of California, San Diego School of Medicine
4/96 - Present	Member of Fleet Reserve (Rank of Captain)

Licensure:

California Medical License Number G-27796, 1974-present

Certification:

Cardiopulmonary Resuscitation Provider, 1980-present

Advanced Trauma Life Support Instructor, 1980-85

Certification (continued):

Advanced Trauma Life Support Provider, 1985-2001

Advanced Cardiac Life Support Instructor, 1981-97

Advanced Cardiac Life Support Provider, 1997-2007

Miscellaneous:

Advanced Cardiac Life Support Affiliate Faculty, 1982-93

Editorial Board, Undersea & Hyperbaric Medicine, 1993-95

Editor-in-Chief, Undersea & Hyperbaric Medicine, 1995-2002

Reviewer, for: Undersea and Hyperbaric Medicine, Journal of Applied Physiology, Physics in Medicine, Chest, Annals of Emergency Medicine, Journal of Emergency Medicine, Journal of Applied Physiology, Aviation, Space and Environmental Medicine, and Cochrane Reviews

Inaugural and Elected Member, Academy of Clinician Scholars, UCSD School of Medicine, 2002-2006

Current Professional Society and Committee Memberships:

Fellow, American College of Physicians

Fellow, American College of Preventive Medicine

Undersea and Hyperbaric Medical Society

North Pacific Chapter, Undersea and Hyperbaric Medical Society

Professional Association of Diving Instructors (Emeritus)

South Pacific Undersea Medical Society

American Board of Preventive Medicine, Undersea and Hyperbaric Medicine Board Examination Committee

Member, Safety Review Board, University of Southern California Marine Science Center, Catalina Hyperbaric Chamber

Previous Activities:

Pharmacy and Therapeutics Committee, UCSD Medical Center, 1980-82, 1988-92

Environmental Health Task Force, San Diego County Lung Association, 1981-82

Program Committee, Undersea Medical Society, 1981-82

Employee Health Services Committee, UCSD Medical Center, 1981-90

Nominations Committee, Undersea Medical Society, 1982-83

Education Committee, Undersea Medical Society, 1982-87

Awards Committee (Chairman), Undersea Medical Society, 1983-84

Executive Committee (Vice-President), Undersea Medical Society, 1983-84

Recruitment and Admissions Committee, UCSD School of Medicine, 1983-84

Credentials Committee (Co-Chairman), Undersea Medical Society, 1984-85

Medical Ethics Committee, UCSD School of Medicine, 1986-88

Core Curriculum Committee, UCSD School of Medicine, 1986-88

Nominations Committee (Chairman), Undersea and Hyperbaric Medical Society, 1988-89

Executive Committee, Undersea Medical Society, 1988-92

Liaison, American College of Emergency Medicine/American College of Undersea and Hyperbaric Medicine, 1988-94

Fellow, American College of Emergency Medicine, 1991-94

Chairman, Emergency Medicine Physician Quality Improvement Committee, 1992-94

Patient Care Review Committee, UCSD Medical Center, 1992-94

American National Standards Institute Committee for Minimal Course Content for Recreational Scuba Instructor Certification, 1992-99

American Diabetes Association Committee on Exercise; Subcommittee on Scuba Diving and Diabetes, 1994-96

Board of Advisors, Grauer School, 2000-01

University of California San Diego, Academy of Clinician Scholars, Membership Committee 2002-2004

Case 3:07-cv-00189-KI Document 839 Filed 03/29/10 Page 15 of 40 Curriculum Vitae

Tom S. Neuman, M.D., FACP, FACPM

Previous Activities (continued):

Department of Medicine Committee on Appointments and Promotions, UCSD School of Medicine (DOMCAP), 1997-2001, 2004-2005

8- Revised 9/7/2007

Publications:

Original Research Articles:

- 1. Neuman TS: Submarine escape training in the U.S. Navy: A re-evaluation. Naval Undersea Medical Institute, 1974.
- 2. Neuman TS, Settle H, Beaver G, Linaweaver P: Maxillary sinus barotrauma with cranial nerve involvement. Aviat Space Environ Med 1975;46(3):314-315.
- 3. Neuman TS, Hall D, Linaweaver PG: Gas phase separation during decompression in man: Ultrasound monitoring. Undersea Biomed Res 1976;3(2):121-130.
- 4. Neuman TS, Harris M, Linaweaver PG: Blood viscosity in man following decompression: Correlations with hematocrit and venous gas emboli. Aviat Space Environ Med 1976;47:803-807.
- 5. Goad RF, Neuman TS, Linaweaver PG: Hematologic changes in man during decompression: Relations to overt decompression sickness and bubble scores. Aviat Space Environ Med 1976;47(8):863-867.
- 6. D'Aoust BG, Smith KH, Swanson HT, Harvey CA, Hunter WL, Neuman TS, Goad RF: Venous gas bubbles: Production by transient deep isobaric counter diffusion of helium against nitrogen. Science 1977;197:889-891.
- 7. Biersner R, Hall D, Neuman T, Linaweaver P: Learning rate equivalency of two narcotic gases. J Appl Psychol 1977;62(6):747-750.
- 8. Bierner R, Hall D, Linaweaver P, Neuman T: Diving experience and emotional factors related to psychomotor effects of nitrogen narcosis. Aviat Space Environ Med 1978:49(8):959.
- 9. Neuman TS, Goad RF, Hall D, Smith R, Claybaugh J, Hong S: Urinary excretion of water and electrolytes during open sea saturation diving to 850 FSW. Undersea Biomed Res 1979;6(3): 291-302.
- 10. Neuman TS, Spragg RG, Wagner PD, Moser KM: Cardiopulmonary consequences of decompression stress. Respir Physiol 1980;41:143-153.
- 11. Neuman TS, Bockman MA, Moody P, Dunford JV, Griffith LD, Guber SL, Guss DA, Baxt WG: An autopsy study of traumatic deaths: San Diego County 1979. Am J Surg 1982;144(6): 722-727.
- 12. Guidotti TL, Cortez JH, Abraham HL, Hughson W, Krems AD, Neuman TS, Bryson AL, Heramb BI: Taking the occupational history. Ann Intern Med 1983;99(5):641-651.
- 13. Guss DA, Dunford JV, Griffith LD, Neuman TS, Baxt WG, Winger B, Guber SL: Clean-catch versus straight-catheter urinalysis results in women. Am J Emerg Med 1985; 3(4):369-371.

Original Research Articles (continued):

- 14. Manoguerra AS, Neuman TS: Fatal acute poisoning from hydrofluoric acid ingestion. Am J Emerg Med 1986;4(4):362-363.
- 15. Neuman TS, Hallenbeck JM: Barotraumatic cerebral air embolism and the mental status examination: A report of four cases. Ann Emerg Med 1987;16(2):220-223.
- 16. Guss DA, Meyer FT, Neuman TS, Baxt WG, Dunford JV, Griffith LD, Guber SL: The impact of a regionalized trauma system on trauma care in San Diego County. Ann Emerg Med 1989; 18(11):1141-1145.
- 17. Gadd MA, McClellan DS, Neuman TS, Hansbrough JF: Effect of hyperbaric oxygen on murine neutrophil and T-lymphocyte functions. Crit Care Med 1990;18(9):974-979.
- 18. Neuman TS, Bove AA: Combined arterial gas embolism and decompression sickness following no-stop dives. Undersea Biomed Res 1990;17(5):429-436.
- 19. Harker CP, Neuman TS, Olson LK, Jacoby I, Santos A: The roengenographic findings associated with air embolism in sport scuba divers. J Emerg Med 1993;11(4):443-449.
- 20. Smith RM, Neuman TS: Elevation of serum creatine kinase in divers with arterial gas embolization. New Engl J Med 1994;330(1):19-24.
- 21. Smith RM, Van Hoesen KB, Neuman TS: Arterial gas embolism and hemoconcentration. J Emerg Med 1994;12(2):147-153.
- 22. Hebel GA, Hutton K, Kanowitz A, Neuman TS, Martinson L, Rosen P: The accuracy of ST segment deviation in prehospital cardiac monitoring. J Emerg Med 1994;12(2):207-211.
- 23. Tenenhaus M, Hansbrough JF, Zapata-Sirvent R, Neuman TS: Treatment of burned mice with hyperbaric oxygen reduces mesenteric bacteria but not pulmonary neutrophil deposition. Arch Surg 1994;129:1338-1342.
- 24. Smith RM, Neuman TS: Abnormal serum biochemistries in association with arterial gas embolism. J Emerg Med 1997;15(3):285-289.
- 25. Kimbro TM, Tom TW, Neuman TS: A case of spinal cord DCS presenting as Brown-Sequard syndrome. Neurology May 1997; 48:1454-1456.
- 26. Chan TC, Vilke GM, Neuman TS, Clausen JL: Custody restraint position and positional asphyxia. Ann Emerg Med 1997;30(5):578-586.
- 27. Neuman TS, Jacoby I, Bove AA: Fatal pulmonary barotrauma due to obstruction of the central circulation with air. J Emerg Med 1998;16(3):413-417.
- 28. Vilke GM, Chan TC, Neuman T, Clausen JL: Spirometry in normal subjects in sitting, prone, and supine positions. Respir Care 2000;45(4):407-410.

Original Research Articles (continued):

- 29. Chan TC, Vilke GM, Clausen J, Clark R, Schmidt P, Snowden T, Neuman T: The impact of oleoresin capsicum spray on respiratory function in human subjects in the sitting and prone maximal restraint positions, final report. NCJ 182433. Washington, DC: United States Department of Justice, National Institute of Justice, 2000, 68 pages.
- 30. Chan TC, Vilke GM, Clausen J, Clark R, Schmidt P, Snowden T, Neuman T: Pepper spray's effects on a suspect's ability to breathe. Research in Brief (NCJ 188069), December 2001. Washington, DC: United States Department of Justice, National Institute of Justice.
- 31. Chan TC, Vilke GM, Clausen J, Clark RF, Schmidt P, Snowden T, Neuman T: The effect of oleoresin capsicum "pepper" spray inhalation on respiratory function. J Forensic Sci 2002; 47(2):28-33.
- 32. Chan TC, Neuman TS, Clausen J, Eisele J, Vilke GM: Weight force during prone restraint and respiratory function. Am J Forensic Med Pathol 2004; 25:185-189.
- 33. Michalewicz, B.A., T.C. Chan, G.M. Vilke, S.S. Levy, T.S. Neuman, and F.W. Kolkhorst. Ventilatory and metabolic demands during aggressive physical restraint in healthy adults. J of For Sci, 2007: 51 (1) 1-5
- 34. Grover IR, Reed W, Neuman T. Validation of the SANDHOG Criteria for the Diagnosis of DCS and AGE. Undersea and Hyperbaric Medicine 2007: 34(3) 199-210.
- 35. Vilke GM, Sloane, C, Bouton KD, Kolkhorst FW, Levine S, Neuman TS, Castillo EM, Chan TC: Physiological Effects of the TASER X-26 on Human Subjects, Annals of Emerg Med. 2007;50(5):569-575.
- 36. Vilke GM, Sloane C, Levine S, Neuman T, Castillo E Chan TC: Twelve Lead ECG Monitoring of Subjects Before and After Voluntary Exposure to the Taser X-26. Am J Emerg Med 2008; 26(1) 1-4.
- 37. Sloane C, Chan T, Levine S, Dunford J, Neuman T, Vilke G, Serum Troponin I Measurement of Subjects Exposed to the Taser X-26®, Journal of Emergency Medicine, Accepted for publication, Aug 14, 2007.

Review Articles:

- 1. Neuman TS: Diving medicine. Clinics in Sports Medicine 1987; 6(3):647-661.
- 2. Guss DA, Neuman TS: Carbon monoxide poisoning: How to detect and what to do. J Respir Dis 1990; 11(9):773-786.
- 3. Kizer KW, Neuman TS: Meeting the challenge of scuba diving emergencies: Recognition, resuscitation, and recompression. Emergency Medicine Reports 1991;12(17):151-160.
- 4. Simmons CW, Neuman TS: Near-drowning: What to look for, how to treat. J Respir Dis 1992;13(8):1084-1094.
- 5. Neuman TS: Dysbaric emergencies in scuba divers. Portion of article titled "Hook, fin, scuba, skin: Aquatic emergencies." Patient Care 1994;28(13):79-86.
- 6. Goad RF, Neuman TS: Decompression sickness: State of the art 1977. Marine Technology Society Journal 1977;11(4):8-12.
- 7. Neuman TS, Bove AA, O'Connor RD, Kelsen SG: Asthma and diving. Annals of Allergy 1994;73:344-350.
- 8. Van Hoesen KB, Neuman TS: Asthma and diving. Immunol Allergy Clinics of N Am 1996;16(4):917-928.
- 9. Chan TC, Vilke G, Neuman T: Reexamination of custody restraint position and positional asphyxia. Am J Forensic Med Pathol 1998;19(3):201-205.
- 10. Neuman TS: Arterial gas embolism and decompression sickness. News Physiol Sci 2002; 17:77-81.

Letters to the Editor:

- 1. Howard JD, Reay DT [32(1):116-117] / Chan TC, Vilke GM, Neuman T, Clausen J: Positional asphyxia (Reply to letter to the editor). Ann Emerg Med 1998;32(1):117-118.
- 2. Neuman TS, Clausen JL: Recommend caution in defining risk factors for barotrauma in divers (Letter to the editor). Chest 1998;114(6):1791-1792.
- 3. Chan TC, Neuman T, Vilke GM, Clausen J, Clark RF: Metabolic acidosis in restraint-associated cardiac arrest (Letter to the editor). Acad Emerg Med 1999;6(10):1075-1076.
- 4. Reay DT, Howard JD [20(3):300-301] / Chan TC, Vilke GM, Neuman T: Restraint position and positional asphyxia (Reply to letter to the editor). Am J Forensic Med Pathol 2000; 21(1):93.
- 5. Vilke GM, Chan TC, Neuman T: Patient restraint in EMS (Letter to the editor). Prehosp Emerg Care 2003; 7(3):417-518
- 6. Medak AJ, Grover IR, Neuman TS: Dive computers profile analyses (Letter to the editor). SPUMS; J. 2005; 35(4):226.

Books:

- 1. The Physiology and Medicine of Diving (fifth edition). Neuman and Brubakk (Eds.); London: WB Saunders, 2003.
- 2. <u>Investigating Recreational and Commercial Diving Accidents</u>. Barsky SM and Neuman TS; Ventura, California: Hammerhead Press, 2003.

Book Chapters:

- 1. Neuman TS: Exercise. In: <u>Manual of Clinical Problems in Pulmonary Medicine</u>, with annotated key references. Bordow, Stool, Moser and Conrique (Eds.); Boston: Little, Brown and Company, 1980, pp 18-21.
- 2. Neuman TS: Pulmonary Oxygen Toxicity. In: <u>Manual of Clinical Problems in Pulmonary Medicine</u>, with annotated key references. Bordow, Stool, Moser and Conrique (Eds.); Boston: Little, Brown and Company, 1980, pp 362-365.
- 3. Neuman TS: Near Drowning, Diving and Decompression. In: <u>Manual of Clinical Problems in Pulmonary Medicine</u>, with annotated key references. Bordow, Stool, Moser and Conrique (Eds.); Boston: Little, Brown and Company, 1980, pp 374-377.
- 4. Neuman TS: Near Drowning. In: <u>Respiratory Emergencies</u> (second edition). Moser and Spragg (Eds.); St. Louis, Missouri: C.V. Mosby, 1982, pp 281-284.
- 5. Neuman TS: Unusual Forms of Trauma. In: <u>Trauma: The First Hour</u>. Baxt (Ed.); Norwalk, Connecticut: Appleton-Century-Crofts, 1985, pp 267-291.
- 6. Neuman TS: Near Drowning, Diving and Decompression. In: <u>Manual of Clinical Problems in Pulmonary Medicine</u>, with annotated key references (second edition). Bordow and Moser (Eds.); Boston: Little, Brown and Company, 1985, pp 336-339.
- 7. Neuman TS (contributing author): In: <u>The Encyclopedia of Recreational Diving</u>. Hornsby and Shreeves (Eds.); Santa Ana, California: International PADI, Inc., 1988.
- 8. Neuman TS: Near Drowning. In: <u>Diving Medicine</u> (second edition). Bove and Davis (Eds.); Philadelphia: W.B. Saunders Company, 1990, pp 105-114.
- 9. Neuman TS: Pulmonary Disorders in Diving. In: <u>Diving Medicine</u> (second edition). Bove and Davis (Eds.); Philadelphia: W.B. Saunders Company, 1990, pp 233-238.
- 10. Neuman TS: Near Drowning and Diving Accidents. In: Manual of Clinical Problems in Pulmonary Medicine, with annotated key references (third edition). Bordow and Moser (Eds.); Boston: Little, Brown and Company, 1991, pp 374-377.
- 11. Neuman TS: Near Drowning and Diving Accidents. In: <u>Textbook of Pulmonary Diseases</u>, Volume II (fifth edition). Baum and Wolinsky (Eds.); Boston: Little, Brown and Company, 1993, pp 1139-1159.
- 12. Neuman TS: Near Drowning and Diving Accidents. In: Manual of Clinical Problems in Pulmonary Medicine, with annotated key references (fourth edition). Bordow and Moser (Eds.); Boston: Little, Brown and Company, 1995, pp 385-388.
- 13. Neuman TS: Pulmonary Barotrauma. In: <u>Diving Medicine</u> (third edition). Bove and Davis (Eds.); Philadelphia: W.B. Saunders Company, 1997, pp 176-183.

14. Neuman TS: Near Drowning. In: <u>Diving Medicine</u> (third edition). Bove and Davis (Eds.);

Philadelphia: W.B. Saunders Company, 1997, pp 217-226.

- 15. Neuman TS: Pulmonary Disorders in Diving. In: <u>Diving Medicine</u> (third edition). Bove and Davis (Eds.); Philadelphia: W.B. Saunders Company, 1997, pp 270-277.
- 16. Bove AA, Neuman TS: Diving-related Illnesses. In: Manual of Sports Medicine. Safran, McKeag and Van Camp (Eds.); Philadelphia: Lippincott-Raven, 1998, pp 114-118.
- 17. Neuman TS: Pulmonary Fitness for Diving. In: <u>The Lung at Depth</u> (first edition); Lung Biology in Health and Disease, Volume 132. Lundgren and Miller (Eds.); Madison, New York: Marcel Dekker, Inc., 1999, pp 73-90.
- Bove AA, Neuman T: Diving Medicine. In: <u>Textbook of Respiratory Medicine</u> (third edition). Murray, Nadel, Mason and Boushey (Eds.); Philadelphia: W.B. Saunders Company, 2000, pp 1951-1969.
- 19. Neuman TS: Near-Drowning and Diving Accidents. In: Manual of Clinical Problems in Pulmonary Medicine (fifth edition). Bordow, Ries and Morris (Eds.); Philadelphia: Lippincott Williams & Wilkins, 2001, pp 441-447.
- 20. Neuman TS: Pulmonary Barotrauma. In: <u>Diving Medicine</u> (fourth edition). Bove and Davis (Eds.); Philadelphia: W.B. Saunders Company, 2003, pp 185-194.
- 21. Neuman TS: Near Drowning. In: <u>Diving Medicine</u> (fourth edition). Bove and Davis (Eds.); Philadelphia: W.B. Saunders Company, 2003, pp 275-286.
- 22. Neuman TS: Pulmonary Disorders in Diving. In: <u>Diving Medicine</u> (fourth edition). Bove and Davis (Eds.); Philadelphia: W.B. Saunders Company, 2003, pp 475-484.
- 23. Neuman TS: Arterial Gas Embolism and Pulmonary Barotrauma. In: <u>The Physiology and Medicine of Diving</u> (fifth edition). Neuman and Brubakk (Eds.); London: W.B. Saunders, 2003, pp 557-577.
- 24. Jones JP, Neuman TS: Dysbaric Osteonecrosis. In: <u>The Physiology and Medicine of Diving</u> (fifth edition). Neuman and Brubakk (Eds.); London: W.B. Saunders, 2003, pp 659-717.
- 25. Snyder BS, Neuman TS: Dysbarism and Complications of Diving. In: <u>Emergency Medicine</u>. Tintenalli (Ed); New York City: McGraw-Hill, 2003, pp 1213-1217.
- 26. Bove AA, Neuman T: Diving Medicine. In: <u>Textbook of Respiratory Medicine</u> (fourth edition). Murray, Nadel, Mason and Boushey (Eds.); Philadelphia: W.B. Saunders Company, 2005, pp 1869-1887.

Book Chapters (continued):

- 27. Grover IR, Neuman TS: Near-Drowning and Diving Accidents. In: <u>Manual of Clinical Problems in Pulmonary Medicine</u> (sixth edition). Bordow, Ries and Morris (Eds.); Philadelphia: Lippincott Williams & Wilkins. 2005, pp 480-485
- 28. Neuman TS. Positional Asphyxia. In: <u>Sudden In Custody Deaths</u>. Ross DL, Chan TC (Eds.): Totowa, NJ: Humana Press, 2006, pp 39-57.
- 29. Grover IR, Neuman TS: Hyperbaric Oxygen Therapy. In: <u>Encyclopedia of Respiratory</u> Medicine (third edition). Laurent and Shapiro. Oxford: Elsevier Ltd. 2006, pp 292 297.
- 30. Snyder BS, Neuman TS: Dysbarism and Complications of Diving. In: Emergency Medicine: A Comprehensive Study Guide. Tintinalli JE, Stapczynski JS, Cline D, Ma OJ, Cydulka RK (eds) 7th ed. McGraw-Hill, (Publication Pending)

Abstracts:

- 1. Neuman TS, Goad R, Linaweaver P: Changes in hematological parameters following dives to 210 FSW and 132 FSW and their correlation with bubble score. Undersea Biomed Res 1976; 3(1):A37-38.
- 2. Neuman TS, Spragg R, Goad R, Harvey C, Howard R, Moser K: The effect of decompression and asymptomatic venous gas emboli on pulmonary gas exchange. Undersea Biomed Res 1978;5(1):41-42.
- 3. Neuman TS, Spragg R, Howard R, Moser K: Cardiopulmonary consequences of decompression stress. American Thoracic Society, May 1978, Boston, Massachusetts. Am Rev Resp Dis 1978;117(4):162.
- 4. Neuman T, Pruett R, Moser K: The relationship between heart rate and aerobic capacity in individuals engaged in underwater activities. Undersea Biomed Res 1979;6(Suppl):22.
- 5. Neuman T, Harrell J, Moser K: Biopsy of endobronchial lesions: Diagnostic yield from repetitive biopsies. Am Rev Resp Dis 1979;119(4)Part 2:155.
- 6. Neuman T, Moser K: Heart rate and exercise in individuals engaged in activities requiring specific ventilatory stress. Am Rev Resp Dis 1979;119(4)Part 2:155.
- 7. Neuman T, Moser K: Heart rate, oxygen consumption and minute ventilation in well-trained athletes. Am Rev Resp Dis 1979;119(4)Part 2:339.
- 8. Neuman T, Spragg RG, Wohl H: Platelet aggregates following decompression. Undersea Biomed Res 1981;8(1)Suppl:42.
- 9. Neuman TS, Bockman MA, Moody P, et al: An autopsy study of traumatic deaths: San Diego County 1979. Southwestern Surgical Congress; April 26-29, 1982, pp 82-83.
- 10. Neuman TS, Bayne CG: Intermittent hyperbaric oxygen therapy for the treatment of barotraumatic cerebral air embolism. Undersea Biomed Res 1984;11(1)Suppl:41.
- 11. Neuman TS, Bove AA: Severe refractory type II decompression sickness resulting from combined non-decompression dives and pulmonary barotrauma. Presented at the Ninth International Symposium on Underwater and Hyperbaric Physiology, Kobe, Japan, September 1986, pp 62.
- 12. Powers AT, Neuman TS: Adjunctive use of HBO for clostridial myonecrosis in the newborn. Presented at the Ninth International Symposium on Underwater and Hyperbaric Physiology, Kobe, Japan, September 1986, pp 69-70.
- 13. Smith RM, Neuman TS: Evidence for coronary artery air embolism associated with cerebral air embolism in diving accidents. Undersea Biomed Res 1987;14(2)Suppl:17.

Abstracts (continued):

- 14. Neuman TS, Powers AT, Osborne DE: The prevalence of asthma, diabetes and epilepsy in a population of divers. Undersea Biomed Res 1988;15(Suppl):62-63.
- 15. Massive hemoptysis and arterial gas embolism. Presented at the meeting of the South Pacific Undersea Medical Society, Vanuatu, New Hebrides, May 1989. (Abstract/Case Report)
- 16. Meyer FT, Guss DA, Neuman TS, Baxt WG, Dunford JV, Griffith LD, Guber SL: The impact of a regionalized trauma system on trauma care in San Diego County. Ann Emerg Med 1989; 18(4):474-475.
- 17. Jacoby I, Olson L, Neuman T: Pneumocardium: A roengenographic marker for overwhelming pulmonary overinflation syndrome. Poster session at the Joint Meeting on Diving and Hyperbaric Medicine, Amsterdam, The Netherlands, August 1990. Undersea Biomed Res 1990;17(Suppl):37.
- 18. Bove AA, Neuman T, Kelsen S, Gleason W: Observations on asthma in the recreational diving population. Undersea Biomed Res 1992;19(Suppl):18.
- 19. Powers AT, Bass B, Stewart J, Flahan M, Neuman TS: A six-year review of scuba diving fatalities in San Diego County. Undersea Biomed Res 1992;19(Suppl):20.
- 20. Neuman TS, Smith RM: Clinical nature of AGE I (hemoconcentration). Undersea Biomed Res 1992;19(Suppl):43-44.
- 21. Smith RM, Neuman TS: Clinical nature of AGE II (biochemical abnormalities). Undersea Biomed Res 1992;19(Suppl):44.
- 22. Neuman TS, Jacoby I, Olson L: Clinical nature of AGE III (radiographic features). Undersea Biomed Res 1992;19(Suppl):45.
- 23. Mosteller JA, Reich D, Harrington N, Rekow G, Jacobsen B, Powers A, Neuman T: A ten-year review of employee hyperbaric exposures. Undersea & Hyperbaric Med 1994;21(Suppl):18.
- Neuman T, Jacoby I, Olson L: Fatal diving-related arterial gas embolism associated with complete filling of the central vascular bed. Undersea & Hyperbaric Med 1994;21(Suppl):95.
- 25. Bove AA, Neuman TS, Smith RM: ECG changes associated with pulmonary barotrauma. Undersea & Hyperbaric Med 1995;22(Suppl):55.
- 26. Harrell JH, Jacoby I, Neuman TS, Van Hoesen KB: Soft tissue and chondronecrosis of the trachea and bronchial tree, and the response to hyperbaric oxygen: A visual demonstration. Undersea & Hyperbaric Med 1996;23(Suppl):136.
- 27. Chan TC, Vilke GM, Neuman TS, Clausen JL: Does the hobble restraint position result in respiratory compromise? Acad Emerg Med 1997;4(5):459.

Abstracts (continued):

- Neuman TS, Vilke GM, Chan TC, Clausen JL: Changes in pulmonary function associated with position. Undersea & Hyperbaric Med 1997;24(Suppl):13.
- 29. Vilke GM, Chan TC, Neuman T, Clausen JL: The effect of body position on pulmonary function. Acad Emerg Med 1998;5(5):397.
- 30. Snyder BK, Jackson-Friedman C, Neuman TS, Lyden PD: Effect of hyperbaric oxygen and indomethacin on neurologic outcome in a rat model of cerebral ischemia. Undersea & Hyperbaric Med 1999;26(Suppl):72.
- 31. Eisele JW, Chan T, Vilke G, Neuman T, Clausen J: Comparison of respiratory function in the prone maximal restraint position with and without additional weight force on the back. Proceedings of the American Academy of Forensic Sciences 2000;VI:202.
- 32. Chan TC, Vilke GM, Neuman T, Clark RF, Clausen J: Effect of oleoresin capsicum. Acad Emerg Med 2000;7(5):471.
- 33. Chan TC, Vilke GM, Neuman T, Clausen J, Schmidt P, Snowden T, Clark RF: Does oleoresin capsicum "pepper spray" exposure impact cardiovascular function in human subjects? Acad Emerg Med 2001;8(5):442.
- 34. Chan TC, Vilke GM, Clausen J, Clark R, Schmidt P, Snowden T, Neuman T: Impact of oleoresin capsicum spray on respiratory function in human subjects in the sitting and prone maximal restraint positions, 1998 (computer file). Inter-university Consortium for Political and Social Research (distributor); 2001.
- 35. Vilke GM, Michalewicz B, Kolkhorst FW, Neuman T, Chan TC: Does weight force during physical restraint cause respiratory compromise? Acad Emerg Med 2005;12(5)(supp1):16.
- 36. Michalewicz, B.A., T.C. Chan, G.M. Vilke, S.S. Levy, T.S. Neuman and F.W. Kolkhorst. Ventilatory and metabolic demands during aggressive physical restrain in healthy adults. American College of Sports Medicine Annual Meeting, Denver, CO, June 2006. Medicine and Science in Sports and Exercise 38(5 Supplement), 2006.
- 37. Witucki P, Grover I, Duchnick J, Neuman T. Incidence of DCS in HBO Chamber Attendants. Undersea and Hyperbaric Medical Society Annual Meeting, Orlando FL. June 2006. Undersea and Hyperbaric Program Abstracts 64.
- 38. Grover IR, Reed W, Neuman T. Validation of the SANDHOG Criteria for the Diagnosis of DCS and AGE. Undersea and Hyperbaric Medical Society Annual Meeting, Orlando FL. June 2006. Undersea and Hyperbaric Medicine Program Abstracts 74.
- K.D. Bouton, G.M. Vilke, T.C. Chan, C. Sloane, S. Levine, T.S. Neuman, S.S. Levy, and F.W. Kolkhorst. Physiological effects of a five second Taser exposure. American College of Sports Medicine Annual Meeting, New Orleans, LA, June 2007.

Case 3:07-cv-00189-KI Document 839 Filed 03/29/10 Page 27 of 40 Curriculum Vitae

Tom S. Neuman, M.D., FACP, FACPM

Abstracts (continued):

40. Vilke GM, Sloane C, Bouton K, Levine S, Neuman TS, Castillo EM, Kolkhorst FW, Chan TC. Cardiovascular and Metabolic Effects of the Taser on Human Subjects. Society for Academic Emergency Conference, Chicago, IL, pp. S104 (#259), May 2007.

- 41. Chan TC, Sloane C, Bouton K, Levine S, Neuman TS, Castillo EM, Kolkhorst FW, Vilke GM. Does the Taser Cause Respiratory Compromise? Society for Academic Emergency Conference, Chicago, IL, pp. S191-2 (#490), May 2007.
- 42. Vilke GM, Sloane C, Levine S, Neuman TS, Castillo EM, Chan TC. Does the Taser Cause Electrical Changes in Twelve Lead ECG Monitoring of Human Subjects? Society for Academic Emergency Medicine Conference, Chicago, IL, pp.S104 (#257), May 2007.
- 43. Witucki P, Grover I, Duchnick J, Neuman T. Incidence of Oxygen Seizures in HBO Chamber Attendants. Undersea and Hyperbaric Medicine ASM; 46, 2007.
- 44. Duchnick JJ, Osth C, Heaney DM, Grover IR, Witucki RJ, Neuman TS. Sodium Acetate Therapeutic Warming Devices: Effects of Oxygen and Pressure. Undersea and Hyperbaric Medicine ASM; 48, 2007.

Workshops, Proceedings, Reports and Position Statements:

- 1. Neuman TS: Why restrict people who want to dive? In: "Fitness to Dive," the Proceedings of the 34th Undersea and Hyperbaric Medical Society Workshop, sponsored by NOAA; May 1986. Bethesda, Maryland: UHMS Publication Number 70(WS-FD); May 1987, pp 14-25.
- Neuman TS: Pulmonary considerations I: Asthma; COPD; Need for special testing. In:
 "Fitness to Dive," the Proceeding of the 34th Undersea and Hyperbaric Medical Society
 Workshop, sponsored by NOAA, May 1986. Bethesda, Maryland: UHMS Publication
 Number 70(WS-FD); May 1987, pp 49-59.
- 3. Neuman TS, Bove AA: Severe refractory decompression sickness resulting from combined non-decompression dives and pulmonary barotrauma: Type III decompression sickness. In: "Underwater and Hyperbaric Physiology IX", the Proceedings of the Ninth International Symposium on Underwater and Hyperbaric Physiology; Kobe, Japan, September 1986. Bethesda, Maryland: Undersea and Hyperbaric Medical Society; 1987, pp 985-991
- 4. Powers AT, Jacoby I, Lynch FP, Coen RW, Neuman TS: Adjunctive use of HBO for clostridial myonecrosis in the newborn. In: "Underwater and Hyperbaric Physiology IX", the Proceedings of the Ninth International Symposium on Underwater and Hyperbaric Physiology; Kobe, Japan, September 1986. Bethesda, Maryland: Undersea and Hyperbaric Medical Society; 1987, pp 1087-1092.
- 5. Neuman TS: The role of helicopter aeroevacuation in the management of diving accident victims. In: "Advances in Underwater Science ... 88," the Proceedings of the American Academy of Underwater Sciences Eighth Annual Scientific Diving Symposium; MA Lang (Ed.). Costa Mesa, California: American Academy of Underwater Sciences; 1988, pp 113-116.
- 6. Neuman TS: United States Navy dive tables and no-stop diving. The Proceedings of the American Academy of Underwater Sciences Dive Computer Workshop; MA Lang and RW Hamilton (Eds.). Sea Grant Publication Number USCSG-TR-01-89. Costa Mesa, California: American Academy of Underwater Sciences; 1989, pp 169-172.
- 7. Hyperbaric Oxygen Therapy. NHLBI Workshop Summary. Am Rev Respir Dis 144(6):1414-1421; 1991.
- 8. Neuman TS: The Case for Allowing Asthmatics to Dive. Are Asthmatics Fit to Dive? Workshop. Undersea and Hyperbaric Medical Society Meeting, Palm Beach, Florida; June 1995.
- 9. Tactical Management of Diving Casualties in Special Operations. UHMS Workshop, Anchorage Alaska; April 30, 1996.
- 10. Dysbaric Osteonecrosis, Pulmonary Decompression Illness, Long Term Effects of Diving Fitness to Dive Symposium, Cozumel, Mexico; June 17-18, 1997.

Workshops, Proceedings, Reports and Position Statements (continued):

- Potkin R, Alexander J, Neuman T: Asthma and Sport Diving. CTS Clinical Practice Assembly, California Thoracic Society, Medical Section of the American Lung Association of California; September 1997.
- 12. The Clinical Features of Pulmonary Barotrauma; Other Targets for Embolic Bubble Injury Pre-meeting Workshop, Undersea and Hyperbaric Medical Society Meeting, Boston, Massachusetts; June 1999.
- 13. "Individual Perspective", the Proceedings of Reverse Dive Profiles Workshop, Smithsonian Institution, Washington, DC; October 29-30, 1999. MA Lang and CE Lehner (Eds.), pp 270-272.
- 14. Chan TC, Vilke GM, Clausen J, Clark RF, Schmidt P, Snowden T, Neuman T: Impact of oleoresin capsicum spray on respiratory function in human subjects in the sitting and prone maximal restraint positions (Final Report). NCJ 182433. Washington, DC: United States Department of Justice, National Institute of Justice, 2000, 68 pages.
- 15. Grover, I: Validation of the SANDHOG Criteria for the Diagnosis of DCS and AGE. Diving Physiol Tech and Aerospace Med 2004; 109 113.
- Safe Passage: Astronaut Care for Exploration Missions, National Academy of Sciences, Institute of Medicine (Published Committee Report). JR Ball and CH Evans (Eds.); Washington, DC: National Academy Press; 2001.
- 17. Chan TC, Vilke GM, Clausen J, Clark R, Schmidt P, Snowden T, Neuman T: Pepper spray's effects on a suspect's ability to breathe. Research in Brief (NCJ 188069), December 2001. Washington, DC: United States Department of Justice, National Institute of Justice.
- Diagnosis of Decompression Sickness and Arterial Gas Embolism Decompression Illness Workshop, Undersea and Hyperbaric Medical Society Meeting, La Jolla, California; June 26, 2002.
- 19. "Deep Decompression Stops and Their Effect Upon Doppler Ultrasonic Bubble Signals Following 210/50 and 170/30 Dives," Deep Stops and Modern Decompression Strategies Workshop, NAUI Worldwide, Technical Diving Operations; Tampa, Florida; February 22-23, 2003.
- 20. The Diagnosis of Decompression Sickness and Arterial Gas Embolism, UHMS DCI Adjunctive Therapy Committee Workshop, Duke University; April 17-18, 2003, pp 80-103.
- 21. Review of NASA's Longitudinal Study of Astronaut Health, National Academy of Sciences, Institute of Medicine. DE Longnecker, FJ Manning, and MH Worth, Jr. (Eds.); Washington, DC: National Academy Press; 2004.
- 22. Preliminary Considerations Regarding NASA's Bioastronautics Critical Path Roadmap, National Academy of Science, Institute of Medicine. Washington, DC: National Academy Press; 2005.

Tom S. Neuman, M.D., FACP, FACPM

Workshops, Proceedings, Reports and Position Statements (continued):

"Bioastronautics Roadmap: A risk reduction strategy for the human exploration of space".
 DE Longnecker, R Molins. National Research Council, Institute of Medicine. Washington,
 D.C: National Academies Press; 2006.

24. Review of NASA's Space Health Flight Standards. Committee Report. National Academies of Sciences 2007. The National Academies Press, Washington D.C. (www.nap.edu).

Presentations and Speaking Engagements:

- 1. Saturation Diving Systems North Pacific Chapter, Undersea Medical Society, Santa Catalina, California; October 1974.
- 2. Physiologic Problems of Deep Diving Western Industrial Health Conference, San Diego, California; October 1975.
- 3. Changes in Hematological and Hemorrheological Parameters Following Dives to 210 FSW and 132 FSW and Their Correlation with Bubble Score Undersea Medical Society, Miami Beach, Florida; May 1976.
- 4. Drowning and Near Drowning Aquatic Emergencies Seminar, County of San Diego Department of Public Health; August 1976.
- 5. Decompression Sickness Grand Rounds, UCSD Medical Center; December 1976.
- 6. Emergency Treatment of Near Drowning and Diving Accidents Postgraduate Institute for Emergency Physicians, Symposium III, UCSD Office of Continuing Education; August 1976, January 10-14, 1977, July 11-15, 1977, October 28, 1977, April 9, 1978, August 11, 1978, November 4, 1978, February 9, 1979.
- 7. Cardiopulmonary Complications Associated with Decompression San Diego Division of the California Society of Cardiopulmonary Technologists; April 20, 1978.
- 8. The Effect of Decompression and Asymptomatic Venous Gas Emboli on Pulmonary Gas Exchange Undersea Medical Society, Seattle, Washington; April-May 1978.
- 9. Cardiopulmonary Consequences of Decompression Stress American Thoracic Society, Boston, Massachusetts; May 1978.
- 10. Physiologic Problem of Diving in Man Physiologic Research Laboratory, Scripps Institute of Oceanography, La Jolla, California; May 30, 1978.
- 11. Drowning: Thermal Problems and the Effects of Increased Partial Pressure of Atmospheric Gases American Occupational Health Association, Anaheim, California; April 30, 1979.
- 12. The Relationship Between Heart Rate and Aerobic Capacity in Individuals Engaged in Underwater Activities Undersea Medical Society, Key Biscayne, Florida; May 1979.
- 13. Treatment of Decompression Sickness Israeli Oceanographic Institute, Haifa, Israel; September 3, 1979.
- Deep Ocean Diving, May 16, 1980 Respiratory Manifestations of DCS, April 10, 1981;
 Topics in Respiration (Man and His Environment) with John B. West, M.D., UCSD School of Medicine, La Jolla, California.

- 15. Physiology of Decompression Sickness Grand Rounds, UCSD Medical Center; March 11, 1981.
- 16. Platelets Aggregates Following Decompression Undersea Medical Society, Monterey, California; May 26-29, 1981.
- 17. Recognition and Management of Diving Casualties Course Director (25 CME credits), UCSD School of Medicine, La Jolla, California; March 1981, October 1981, September 1982, October 1983.
- 18. An Autopsy Study of Traumatic Deaths: San Diego County, 1979 Southwestern Surgical Congress, 34th Annual Meeting, San Diego, California; April 29, 1982.
- 19. Pathophysiology of Drowning Kaiser Permanente Medical Group of Northern California, South San Francisco, California; July 13, 1983.
- 20. Neurologic Sequelae in Selected Cases of Scuba-related Injury Neurology Grand Rounds, UCSD Medical Center; August 19, 1983.
- 21. Diving Medicine in Depth Selected Topics: Emergency Medicine Course Lecturer, Human Underwater Biology, Bonaire, Netherlands Antilles; April 14-22, 1984.
- 22. Current Indications for Hyperbaric Oxygen Therapy Fallbrook Hospital, Fallbrook, California, May 17, 1984.
- Diving Medicine Annual Meeting of the American College of Sports Medicine, San Diego, California; May 23, 1984.
- 24. Intermittent Hyperbaric Oxygen Therapy for the Treatment of Barotraumatic Cerebral Air Embolism Undersea Medical Society, San Antonio, Texas; May 29-June 2, 1984.
- 25. Marine and Aquatic Sports Medicine Course Lecturer, University of California, Davis, Monterey, California; June 24-27, 1984.
- 26. Hyperbaric Medicine Fact and Fiction Pomerado Hospital, San Diego, California; August 10, 1984.
- 27. Hyperbaric Oxygen Therapy Villa View Community Hospital, San Diego, California; October 18, 1984.
- 28. Carbon Monoxide Poisoning Complicated by Near Drowning Management and Mortality Conference, Department of Medicine, UCSD Medical Center; October 26, 1984.
- 29. Medicine in the Aquatic Environment Principal Lecturer, Cairns, Australia; November 2-17, 1984.
- 30. Near Drowning Medical Chest Conference, UCSD School of Medicine; March 21, 1985.

- 31. Diving Medicine in Depth Selected Topics: Emergency Medicine Course Lecturer, Human Underwater Biology, Bonaire, Netherlands Antilles; April 1-7, 1985.
- 32. Syncope at 30 Feet A Case of Carbon Monoxide Poisoning Management and Mortality Conference, Department of Medicine, UCSD Medical Center; May 3, 1985.
- 33. Diving Medicine in Depth: Introduction to Diving Medicine Course Lecturer, Human Underwater Biology, Grand Cayman Island; July 7-13, 1985.
- 34. Hyperbaric Therapy: Fact and Fancy Advances in Internal Medicine Postgraduate Course, Department of Medicine, UCSD Medical Center; September 2, 1985.
- 35. Arterial Gas Embolism Management and Mortality Conference, Department of Medicine, UCSD Medical Center; January 17, 1986.
- 36. Hyperbaric Medicine in Current Medical Practice Annual Meeting of the Oregon Physicians Ski Association, Sun River, Oregon; February 20, 1986.
- 37. Diving Medicine in Depth Selected Topics: Special Problems Course Lecturer, Human Underwater Biology, Bonaire, Netherlands Antilles; March 22-29, 1986.
- 38. Diving Safety Presentation to the San Diego County Sheriff's Special Enforcement Detail, San Diego, California; June 11, 1986.
- 39. Introduction to Diving Medicine Presentation to the Medical Department of the California Institution for Men, Chino, California; July 3, 1986.
- 40. Diving Medicine in Depth Selected Topics: Special Problems Course Lecturer, Human Underwater Biology, Grand Cayman Island; July 12-19, 1986.
- 41. Severe Refractory Type II Decompression Sickness Resulting from Combined "No Decompression" Dives and Pulmonary Barotrauma Ninth International Symposium on Underwater and Hyperbaric Physiology, Kobe, Japan; September 20, 1986.
- 42. Symptoms and Treatment of Arterial Gas Embolism and Decompression Sickness U.S. Coast Guard Air Station, San Diego, California; September 25, 1986.
- 43. Hyperbaric Oxygen Therapy and Osteoradionecrosis Grand Rounds, Division of Head and Neck Surgery, Veterans Affairs Medical Center, La Jolla, California; January 9, 1987.
- 44. Drowning Medical Chest Conference, Division of Pulmonary and Critical Care Medicine, UCSD Medical Center; January 22, 1987.
- 45. Interpretation of Arterial Blood Gases—Emergency Medicine Lecture Series, Veterans Affairs Medical Center and UCSD Medical Center; July 28 & 31, 1987.

- 46. Evaluation of the Patient in Respiratory Distress and the Interpretation of the Arterial Blood Gases Family Medicine Grand Rounds, UCSD Medical Center, August 6, 1987.
- 47. Drowning Sharp Rees-Stealy Medical Group, San Diego, California; September 4, 1987.
- 48. Hyperbaric Oxygenation: Current Status Medical Chest Conference, Division of Pulmonary and Critical Care Medicine, UCSD Medical Center; October 22, 1987.
- 49. Hyperbaric Medicine School of Medicine Associates, UCSD School of Medicine; November 18, 1987.
- 50. Guest Lecturer, Underwater Medicine 1988, sponsored by Temple University School of Medicine, held at Cayman Brac; January 23-29, 1988.
- 51. Summit to Submarine Baromedicine from Altitude Sickness to the "Bends" and "Drowning" California Medical Association Western Scientific Assembly, Reno, Nevada; March 5, 1988.
- 52. Medical Evaluation of Scuba Divers Student Health Services, San Diego State University; April 21, 1988.
- 53. Clinical Hyperbaric Medicine Course Principal Lecturer, Alvarado Medical Center, San Diego, California; April 23-24, 1988.
- 54. Decompression Sickness and Arterial Gas Embolism Management and Mortality Conference, Department of Medicine, UCSD Medical Center; April 28, 1988.
- 55. Current Indications for Hyperbaric Oxygen Therapy Grand Rounds, Children's Hospital and Medical Center, San Diego, California; April 29, 1988.
- 56. The Prevalence of Asthma, Diabetes and Epilepsy in a Population of Divers Undersea and Hyperbaric Medical Society, New Orleans, Louisiana; June 6-10, 1988.
- 57. Diving Medicine Sports Medicine 1988: A Practical Approach to Caring for Today's Athlete, San Diego, California; July 29, 1988.
- 58. Near Drowning and Diving Medicine: Case Presentations Fourth Annual Wilderness Medicine Conference, Snowmass, Colorado; August 14-15, 1988.
- 59. USN Dive Tables American Association of Underwater Scientists Workshop, USC Marine Science Center, Catalina, California; September 27, 1988.
- 60. Diving Accidents Management and Mortality Conference, Department of Medicine, UCSD Medical Center; October 28, 1988.

- 61. Computer-Assisted Diving Banquet Speaker, The Hazards of Diving in Polluted Water, University of Maryland Sea Grant, Bethesda, Maryland; December 13-16, 1988.
- 62. Guest Lecturer, Underwater Medicine 1989, sponsored by Temple University, held at Virgin Gorda, British Virgin Islands; January 14-21, 1989.
- 63. Carbon Monoxide Poisoning Grand Rounds, Department of Medicine, UCSD Medical Center; February 15, 1989.
- 64. Carbon Monoxide Poisoning Morbidity and Mortality Conference, Children's Hospital and Health Center, San Diego, California; April 18, 1989.
- 65. Hyperbaric Oxygen Therapy for Osteoradionecrosis of the Mandible Advanced Oral and Maxillofacial Surgery Course, Naval Dental Clinic, San Diego, California; May 8-10, 1989.
- 66. Pulmonary Problems Fit to Dive, Pre-meeting Course of the Undersea and Hyperbaric Medical Society, Honolulu, Hawaii; June 6, 1989.
- 67. Near Drowning and Diving Medicine Marine Medicine 1989, UCSD Office of Continuing Medical Education, San Diego, California; July 10-14, 1989.
- 68. Interpretation of Arterial Blood Gases Emergency Medicine Lecture Series, VA Medical Center and UCSD Medical Center; July 18 & 26, 1989.
- 69. Diving Medicine in Depth Selected Topics: Special Problems Course Lecturer, Human Underwater Biology, Cayman Brac; July 30-August 4, 1989.
- 70. Pressure Related Illness from the Sea to Summit Fifth Annual Wilderness Medicine Conference, Snowmass, Colorado; August 13, 1989.
- 71. Diving Medicine Fifth Annual Wilderness Medicine Conference, Snowmass, Colorado; August 14, 1989.
- 72. Asthma and Diving Pulmonary Fitness for Diving 1990 Joint Annual Conference of the Undersea and Hyperbaric Medical Society's Gulf Coast Chapter, the Undersea and Hyperbaric Medical Society Associates, and the Baromedical Nurses Association, Birmingham, Alabama; April 26, 1990.
- 73. Hyperbaric Oxygen and Head & Neck Surgery ENT Grand Rounds, UCSD Medical Center; May 10, 1990.
- 74. Osteoradionecrosis and Hyperbaric Oxygen Advanced Oral and Maxillofacial Surgery, Department of the Navy, San Diego, California; May 16, 1990.
- Marine Bites and Stings Wound Management Workshop for Nonsurgeons, UCSD Medical Center; May 18, 1990.

- Near Drowning Marine Medicine 1990, UCSD Office of Continuing Education, San Diego, California; July 9, 1990.
- 77. Diving Medicine: An Overview Marine Medicine 1990, UCSD Office of Continuing Education, San Diego, California; July 10, 1990.
- 78. Where Do Standard Tables (Navy) Come From and How Safe Are They? Marine Medicine 1990, UCSD Office of Continuing Education, San Diego, California; July 11, 1990.
- 79. Workshop on Advanced Diving Medicine: Decompression Tables (Moderator) Marine Medicine 1990, UCSD Office of Continuing Education, San Diego, California; July 11, 1990.
- 80. Diving Medicine in Depth Selected Topics: Fitness to Dive Course Lecturer, Human Underwater Biology, Fiji; October 9-20, 1990.
- 81. Treatment of Carbon Monoxide Poisoning Department of Emergency Medicine, Naval Hospital, San Diego, California; December 6, 1990.
- 82. Course Lecturer, Underwater Medicine 1991, sponsored by Temple University, held at Bonaire, Netherlands Antilles; January 13-18, 1991.
- 83. Carbon Monoxide Poisoning Management and Mortality Conference, Department of Medicine, UCSD Medical Center; March 1, 1991.
- 84. Diving Accidents Ambulatory Care Conference, Department of Medicine, UCSD Medical Center; March 5, 1991.
- 85. Diving Medicine Grand Rounds, Division of Family Medicine, UCSD Medical Center; April 17, 1991.
- 86. HBO Therapy and its Role in the Management of Necrotizing Soft Tissue Infections Trauma Conference, Department of Surgery, UCSD Medical Center; April 23, 1991.
- 87. Hyperbaric Medicine Wednesday Morning Lecture Series, Sharp Memorial Hospital; May 22, 1991.
- 88. Diving and Decompression Introductory Pulmonary Clinical Course, Pulmonary and Critical Care Division, UCSD Medical Center; July 3, 1991.
- 89. Drowning Grand Rounds, Department of Surgery, UCSD Medical Center; August 3, 1991.
- 90. Clinical Nature of AGE I (hemoconcentration); Clinical Nature of AGE II (biochemical abnormalities); and Clinical Nature of AGE III (radiographic features) Annual Conference of the Undersea and Hyperbaric Medical Society, Bethesda, Maryland; June 25, 1992.

- 91. Diving Medicine Marine Medicine 1992, UCSD Office of Continuing Education, San Diego, California; July 16, 1992.
- 92. Neurologic Consequences of Diving Accidents Grand Rounds, Department of Neurology, UCSD Medical Center; November 6, 1992.
- 93. Indications For and Use of Hyperbaric Oxygen Therapy Department of Medicine Noon Conference, Veterans Affairs Medical Center, La Jolla, California; December 7-8, 1992.
- 94. Drowning and Diving Medicine Palomar College; December 9, 1992.
- 95. Diving Physics; Decompression Tables and Computers; Pathophysiology and Treatment of AGE; Diagnosis and Management of Decompression Sickness; Multiplace and Monoplace Chambers Underwater Medicine 1993, sponsored by Temple University, held at Bay Islands, Honduras; January 17-24, 1993.
- 96. Near Drowning; Pathophysiology and Treatment of Decompression Sickness; Asthma and Diving; History of Navy Tables and Their Safety; Computerized Diving 22nd Diving Accident and Hyperbaric Medicine Course, Divers Alert Network, Duke University, held at Cozumel, Mexico; April 24 May 1, 1993.
- 97. Hyperbaric Oxygen Therapy Department of Medicine Noon Conference, Veterans Affairs Medical Center and UCSD Medical Center; September 13, 1993 and September 21, 1993.
- 98. Lies, Damn Lies and Diving Medicine Diver's Day, sponsored by Hyperbaric Oxygen Treatment Center at Saint Joseph Health Center and The Lee's Summit Underwater Recovery Unit, Kansas City, Missouri; October 9, 1993.
- 99. Diving Associated Arterial Gas Embolism Pulmonary and Critical Care Grand Rounds, UCSD Medical Center; February 17, 1994.
- 100. Diving Medicine; Carbon Monoxide Poisoning; Near Drowning; Hyperbaric Medicine 14th Annual Colorado Symposium on Emergency Care, Durango, Colorado; April 22-24, 1994.
- Diving Medicine; Near Drowning Wilderness Medicine Conference, Snowmass, Colorado; August 18-19, 1994.
- 102. Near Drowning; U.S. Navy Tables Pathophysiology and Treatment of AGE; Computerized Diving; Asthma and Diving 25th Diving Accident and Hyperbaric Medicine Course, Divers Alert Network, Duke University, held at Peter Island, British Virgin Islands; October 1-8, 1994.
- 103. Arterial Air Embolism; Asthma and Diving; Decompression Safety; Diving Accident Analysis Underwater Medicine 1995, sponsored by Temple University, held at St. Lucia, West Indies; January 14-21, 1995.

- 104. Asthma and Diving; "Are Asthmatics Fit to Dive" Pre-meeting Symposium, Undersea and Hyperbaric Medical Society, West Palm Beach, Florida; June 21, 1995.
- 105. Diving Medicine; Keynote Speaker at Century Hospital Staff and Faculty Retreat, La Costa, California; July 15, 1995.
- Neurologic Aspects of Dysbarism Grand Rounds, Department of Neurosciences, UCSD Medical Center, San Diego, California; September 15, 1995.
- 107. Barotrauma; Arterial Air Embolism; Diving with Asthma; Decompression Safety; Near Drowning Underwater Medicine 1996, sponsored by Temple University, held at Little Cayman Island; January 14-19, 1996.
- 108. Arterial Air Embolism; Technical Diving; Near Drowning; Diving with Asthma Diving Medicine Course, Divers Alert Network, Duke University, held at Moorea, French Polynesia; September 29-October 6, 1996.
- 109. Advances in Treatment and Understanding Arterial Gas Embolism Explosive Ordinance Disposal Group, Diving Medicine Symposium, Coronado, California; November 21, 1996.
- 110. Arterial Gas Embolism; Diving Safety; Diving and Asthma Underwater Medicine 1997, sponsored by Temple University, held at Cozumel, Mexico; January 12-18, 1997.
- 111. The Care of the Critically Ill in a Hyperbaric Chamber, Carbon Monoxide Poisoning, Arterial Gas Embolism IX International Symbolism of Critical Care Medicine, SOPATI Sao Paulo, Brazil; June 6-8, 1997.
- 112. Diving Medicine; Near Drowning Wilderness Medicine Conference, Snowmass, Colorado; August 17-18, 1997.
- 113. Near Drowning Grand Rounds, Department of Emergency Medicine, UCSD Medical Center, San Diego, California; November 11, 1997.
- 114. Oxygen Toxicity Keynote Speaker at Great Lakes Chapter, Undersea and Hyperbaric Medical Society Meeting, Hamilton, Canada; November 15, 1997.
- 115. Review of Arterial Gas Embolism Naval Environmental Health Conference, San Diego, California; March 27, 1998.
- 116. Pulmonary Barotrauma and Arterial Gas Embolism Institute for Marine Medicine, Simon's Town, Republic of South Africa; July 23, 1998.
- 117. Drowning and Breathhold Diving; Pathophysiology and Treatment of AGE and DCI; Potential Long Term Effects, Neurological, Aseptic Necrosis, etc; Computers and Diving, Pathophysiology and Treatment with HBO Diving Medicine Course, Divers Alert Network, Duke University, held at Cozumel, Mexico; October 4-9, 1998.

- 118. Hyperbaric Oxygen Therapy Grand Rounds, Northridge Hospital, Northridge, California; January 15, 1999.
- 119. Barotrauma; Diving with Asthma; Decompression Safety—Underwater Medicine 1999, sponsored by Temple University, held at Little Cayman Island; January 17-22, 1999.
- 120. Moderator, Session on Health Effects of Diving, Undersea and Hyperbaric Medical Society Meeting, Boston, Massachusetts; June 1999.
- 121. Non-Pulmonary Barotrauma, Pulmonary Barotrauma, Diving and Asthma, Near Drowning Underwater Medicine 2000, sponsored by Temple University, held at Peter Island, British Virgin Islands; January 15-22, 2000.
- 122. Near Drowning—Grand Rounds, Department of Emergency Medicine, UCSD Medical Center, San Diego, California; March 13, 2001.
- 123. Diving Medicine; Near Drowning—Wilderness Medicine Conference, Keystone, Colorado; July 7-8, 2001.
- 124. Treatment of Decompression Illness, Non-Pulmonary Barotrauma, Pulmonary Barotrauma, Diving and Asthma, Near Drowning, Diving Tables and Computers Underwater Medicine 2002, sponsored by Temple University, held at Curacao, Netherlands Antilles; January 12-19, 2002.
- 125. Drowning and Near Drowning, Topics and Advances in Internal Medicine, UCSD School of Medicine, San Diego, California; March 2, 2002.
- 126. Near Drowning, Sudden Death; Breath Hold Diving, Pathophysiology and Treatment of Arterial Gas Embolism, Fitness to Dive: Diving Action Network (DAN), 44th Diving and Hyperbaric Medicine Course, Turks & Caicos, B.W.I.; April 21-23, 2002.
- 127. Arterial Gas Embolism, The Diagnosis of Decompression Sickness and AGE, Naval School of Diving and Salvage, Panama City, Florida; October 17, 2002.
- 128. "Deep Decompression Stops and Their Effect Upon Doppler Ultrasonic Bubble Signals Following 210/50 and 170/30 Dives," Deep Stops and Modern Decompression Strategies Workshop, NAUI Worldwide, Technical Diving Operations, Tampa Florida; February 22-23, 2003.
- 129. The Diagnosis of Decompression Sickness and Arterial Gas Embolism, Adjunctive Therapy for DCI Workshop, Duke University; April 17, 2003.
- 130. Arterial Gas Embolism, The Diagnosis of Decompression Sickness and AGE, Naval School of Diving and Salvage, Panama City, Florida; April 24, 2003.

- 131. Underwater Medicine, 29th Annual Underwater Medicine Course, Temple University School of Medicine, Dominica West Indies; January 17-24, 2004.
- 132. Arterial Gas Embolism, The Diagnosis of Decompression Sickness and AGE, Naval School of Diving and Salvage, Panama City, Florida; April 29, 2004.
- 133. The Diagnosis of Decompression Sickness and Arterial Gas Embolism, Adjunctive Therapy for DCI Workshop, Duke University; April 30, 2004.
- 134. Non-pulmonary Barotrauma, Pulmonary Barotrauma, Decompression Sickness and the Deep Stop, The Diagnosis of Decompression Sickness, Computers and Diving, Technical diving and Nitrox. Divers Alert Network (DAN), 55th Diving and Hyperbaric Medicine Course, Bonaire, NA; Oct 21 28, 2005.
- 135. The Moon, Mars and Beyond: The Physiologic Problems of Space Flight Beyond Low Earth Orbit Grand Rounds, Department of Emergency Medicine, UCSD Medical Center, San Diego, California; January 10, 2006.
- 136. Lung Barotrauma and Arterial Gas Embolism, Near Drowning, Diagnosing Diving Disorders, Decompression Computers, The Mission to Mars: Links between Undersea and Space Environments, Underwater Medicine 2006, Sponsored by Temple University, held at Saint Lucia; January 14-21, 2006.
- 137. Positional Asphyxia and How it Morphed into Compressional Asphyxia. 2nd Annual Sudden Death, Excited Delirium & In-Custody Death Conference. Institute for the Prevention of in Custody Deaths, INC. Las Vegas, Nevada November 28-30, 2007.